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ABSTRACT

This study examines the changes that have occurred in the ways colleges and universities in the Southern Regional Education Board (SREB) seek to prepare teachers. Particular focus is on the effects of state policies and on the role of college and university leaders in bringing about change. The study describes and explains changes in the way prospective teachers are readied for teaching, but does not assess the value or consequences of those changes. Two types of questionnaires were sent to all 189 four-year public colleges and universities in the 15 states that comprise the membership of the SREB, and to 56 private colleges and universities in these states that graduate significant numbers of certified teachers. The first questionnaire dealt with information about changes in the admission or retention standards, changes in curriculum, changes in philosophy or demographics, governance structures, and other information about the change process. A second questionnaire inquired into the role of the arts and sciences in the preparation of teachers. Key conditions contributing to effective change processes are analyzed and the role of educational institutions on changing teacher education and the formation of public policy is described. (JD)

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SREB

Southern Regional Education Board

Changing the Education of Teachers

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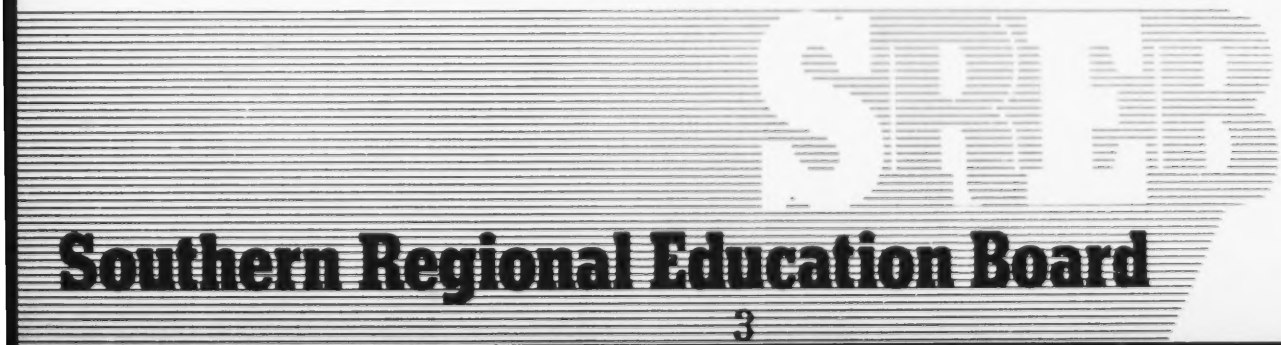

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The interpretations, judgments, and conclusions reflected in our report of the study are, of course, our responsibility and do not necessarily represent the views of the SREB or others from whose help we benefitted.

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Highlights of this study will be found in the SREB publication, Is the Education of Teachers Changing?. *(Copies are available from Southern Regional Education Board; 592 Tenth Street, NW, Atlanta, Georgia 30318-5790 at $4.00 each; payment should accompany order.)*

INTRODUCTION

Purpose of the Study

The nationwide movement to reform American education that began in the early 1980s has had, as one of its prime objectives, more effective and more efficient ways to educate beginning teachers. This study examines the changes that have occurred in the ways colleges and universities in the Southern Regional Education Board (SREB) states* seek to prepare teachers. We are particularly interested in the effects of state policies and in the role of college and university leaders in bringing about change.

Professional courses that deal with topics such as the history and philosophy of education, teaching methods, and child development are only part of the education of teachers and typically comprise about one-fourth to one-half of a college student's coursework prior to teacher certification, depending on institutional and state policies and on the grade-level for which the student is preparing to teach. Thus, we distinguish between the education of teachers and teacher education, with the latter referring to specific professional preparation. As this report will show, reforms in the way teachers are educated have, with some exceptions, focused largely on teacher education programs.

Our hope is that this study holds some lessons for those interested in changing the way teachers are educated. But, we seek to describe and explain changes in the way prospective teachers are readied for teaching, not to assess the value or consequences of those changes. Like almost everyone else, we have our own views about the effects of specific changes on what new teachers know and are able to do, but we have tried to keep these judgments from influencing our analysis and conclusions.

How the Study Was Conducted

The information upon which this study is based was derived from two sources: questionnaires designed to provide descriptions of changes in the education of teachers over the past five years (1981-82 to 1986-87) and visits to selected universities during which we examined more closely the factors that influenced change. Two types of questionnaires were sent to all 189 four-year public colleges and universities in the 15 states that comprise the

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* The 15 SREB states are: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

membership of the Southern Regional Education Board (SREB) and to 56 private colleges and universities in these states that graduate significant numbers of certified teachers.

The first questionnaire requested extensive information about changes in various aspects of the institution's programs to prepare teachers: changes in admission or retention standards and procedures, changes in curricula, changes in philosophy or demographics, administrative or faculty governance structures through which these types of changes are processed, and other information about the change process. This questionnaire was sent to the chief academic officer of the school, college, or department of education. For the majority of the respondents, this questionnaire was processed through the office of a dean of education. We received responses from about 75 percent of the (142) public institutions and 40 percent (19) of the private institutions. The responding institutions graduate over 80 percent of the persons who are initially prepared to teach in the 15 SREB states. (For more details on the respondents, see Appendix.)

A second, shorter questionnaire was sent to the head of arts and sciences, usually a dean. The arts and sciences questionnaire asked about involvement of liberal arts faculty and administrators in changes in the institution's programs to prepare teachers and also asked for an assessment of the extent to which the institution's central administration was involved with changes in the education of teachers. Additionally, we conducted six site visits at selected institutions. During these visits we interviewed key faculty and administrators about the changes that had occurred, their roles in the change process, and their views on the nature, causes, and permanence of the changes. In each of the six visits, a dean or acting dean of education and his or her administrative staff (assistant or associate deans, directors of teacher education) coordinated the visit and provided initial information about the programs and recent changes. We interviewed at least one central administrator of the institution (president, academic vice president, or provost) and an academic officer in arts and sciences (dean or associate dean or both). We met with faculty in education and arts and sciences who had been involved with teacher education, usually as members of an institution-wide committee or council on teacher education and, in some instances, the site visitor attended a meeting of such a council. We also interviewed faculty in different teacher preparation programs (elementary, secondary, special education) and usually spoke with heads of these programs if such existed.

Responses to the two sets of survey questionnaires were the basis for the selection of the initial pool of possible site visit institutions. The primary criterion for selection of these institutions was indication of substantial changes that went beyond the college or department of education. Each set of surveys was reviewed and a group of 15-20 institutions

were selected from each set. The two sets were then compared and on the basis of the nature of the change undertaken and the degree of involvement by faculty and administrative leaders in both education and arts and science, 10 institutions were selected for potential site visits.

The final list of six universities was selected after consultation with the SREB staff, with several state higher education officials, and with officials in the institutions under consideration. The six institutions selected and visited were Middle Tennessee State University in Murfreesboro, Tennessee; Murray State University in Murray, Kentucky; Mississippi State University in State College, Mississippi; Norfolk State University in Norfolk, Virginia; The University of Florida in Gainesville, Florida; and the University of North Carolina at Greensboro, in Greensboro, North Carolina.

In presenting information from the case studies, we have decided against separate discussions and analyses of changes in teacher education programs in the individual institutions. Rather, we have chosen to focus upon what our respondents and the literature on institutional change suggest are factors that significantly influence the character and outcome of change efforts. We cite specific examples from the selected institutions in our discussion of these factors.

The Changing Context and the Context of Change

The educational reform movement is often said to have been launched by the flood of reports and studies that inundated the nation in 1983 and 1984. These assessments argued that the overall quality of our schools was, at best, a disgrace and, at worst, a threat to our economic and political welfare. Actually, substantial efforts to improve schools in most states began to gain momentum in the mid-1970s triggered by reports of declining scores on tests of student achievement and unfavorable comparisons of the academic capabilities of American students and the students of most other industrialized nations.

By the time the reform movement of the 1980s became a national (and international) story, student scores on standardized tests were on the rise almost everywhere (Congressional Budget Office, 1987). The educational reforms of the 1970s focused largely on curriculum. Teacher education received relatively little attention from policymakers during this period although state education agencies, often at the urging of special interest groups (including teacher educators in some cases), continued to specify the content of teacher preparation programs and courses in increasingly detailed ways. By the mid-1970s, the normal schools that had educated most of the nation's teachers had become regional multipurpose colleges and universities

which, in turn, had led to a broader curriculum. For example, the widely held view that college students preparing to teach high school took most of their coursework in education departments and schools was, by the 1980s, largely incorrect.

While the reform was on the rise in the 1970s, demands for change reached tidal wave proportions by 1985. If those who prepare the nation's standardized tests had described the difference between the reform efforts of the 1970s and those of the 1980s, they might have said that the movement of the former was to the latter what Mozart was to Tchaikovsky. As had no previous reform movement of national scope, the reform movement of the 1980s defined the quality of teachers as both the problem and the solution. And, if the characteristics and capabilities of teachers fell short of our needs and expectations, many reformers concluded that no small part of the solution was to change significantly the ways teachers are selected and prepared.

Few would-be reformers spared teacher education in their analyses of the reasons for the weaknesses of our schools. Teacher education's share of the blame for the risk to which the nation was exposed ranged from charges that it was "the smoking gun" to more sober assessments. Newsweek magazine's lead story in its September 24, 1984 edition was entitled "Why Teachers Fail"; the reason given was the way teachers are educated. It seemed that no one had anything good to say about teacher education; not university presidents, not school administrators, and--most damning of all--not teachers. Even among teacher educators, the most common response to criticisms was that things were not as bad as they were being portrayed. And, many education deans at the nation's most prestigious universities took the position that the weaknesses of teacher education were so great that only radical changes in the status quo should be considered (Holmes Group, 1986).

While the demands for reform in the ways teachers are educated have come in many shapes and sizes, there appear to be eight general themes that cover most of the proposals for change:

1. Various measures of intellectual capability and academic achievement should be used to control entry to teacher education and teaching so as to increase the quality of the teaching corps.

2. Prospective teachers should have a strong grounding in the liberal arts and should have substantial coursework in the subjects they will teach. Students who want to teach in high school, and perhaps all teachers, should major in an academic subject.

3. Professional education courses should be more sophisticated and more demanding. In particular, courses dealing with teaching methods should incorporate the findings of recent research.

4. Professional education should involve more field experiences and semester-long practice teaching experiences.

5. Preservice teacher education should be extended to one full year of coursework beyond the time the person receives the bachelor's degree. Some proposals urge that teacher preparation stretch over the five-year period; others argue that teacher education should not commence until after undergraduate work has been completed.

6. Because instruction that prospective teachers experience throughout their college years will almost certainly have some influence upon their own teaching practices, teacher candidates should be exposed to the same quality of instruction in their college programs that will be expected of them when they begin their own teaching careers.

7. States should develop ways that individuals can be certified which would not require attendance in conventional teacher preparation programs. These "alternative certification" paths would seek to attract persons of exceptional academic talent to teaching.

8. Induction programs for first-year teachers or special schools for teacher training within public school systems should be developed in order to ensure that new teachers are able to put into effect and build upon what they learn about teaching in college.

Many proposals for reforming teacher education incorporate versions of a number of these objectives. For example, the Southern Regional Education Board, which has had considerable influence on educational policy making in Southern states, advocates aspects of seven of these eight types of reforms, demurring only on the idea that initial teacher certification should require more than four years of college-based coursework (SREB, 1986).

In the next section of this report, we will examine the nature of the changes taking place in the education of teachers in SREB states with respect to the first six of these general proposals for reform. Alternative certification programs have been authorized by several states and some universities and colleges are participating in such alternatives. But, so far as we can tell, these alternatives have not significantly affected the content, delivery, or enrollments of conventional teacher preparation programs in the region.

Induction programs have also been authorized and implemented in several Southern states, but no one responding to our questions about the reasons for changes in the education of teachers asserted that the induction programs, except for the testing embodied in some of them, have affected the way colleges and universities are educating beginning teachers. (We will discuss the impact of teacher testing programs.) Some institutions incorporate into

their programs public schools with which they have special relationships. But, with one or two exceptions, these affiliated schools predated the current demands for teacher education reform.

It is important to note that, in general, state policies affecting teacher education are most restrictive and most detailed in the South (Scannell, 1988). This fact limits the extent to which the lessons drawn from this study can be applied to other regions of the country. At the same time, many of the generalizations we discuss relating to the role of leaders and the nature of the dynamics of change within colleges and universities do seem relevant to most settings.

Let us turn now to the changes that have been made in the ways Southern colleges and universities educate new teachers.

CHANGES IN THE WAY TEACHERS ARE EDUCATED

As noted, most demands for changing the education of teachers seem to have one of eight themes. How are Southern colleges and universities responding to the six demands that most directly affect them and what are some short-run consequences of these changes? With respect to the outcomes of the changes taking place, the hard evidence we have is limited and we will try to label the certainty of the conclusions we reach accordingly. The data we draw upon in this section come primarily from our questionnaires. Where appropriate, we cite examples from the institutions we visited, not because these institutions are representative but because the examples may serve to clarify the points we try to make.

Standards for Entry to Teacher Education and to Teaching

Changes. The most common change being made in the education of teachers is to increase the standards for entry into teacher education programs. The point at which entry to teacher education is formalized varies by institution, but this step is usually taken during or at the end of a student's sophomore year. Most institutions encourage students to sample education courses prior to the time they formally enter teacher education programs, and most schools allow entry at any time after the sophomore year.

Eighty-one percent of the 123 institutions that provided data on grade point averages (GPA) required for admission to teacher education indicated that they had increased their standard. None reported a lowered standard. In almost every case, the changes involved movement toward a 2.5 average (on a 4-point scale) in all courses, the new standards established by the National Council for Accreditation of Teacher Education (NCATE). By 1987, eight of the SREB states required a 2.5 grade point average for admission to the teacher education programs. Given that some of the institutions reporting no change already require a 2.5 (C+) average, it seems that the time is near when almost all teacher candidates will be required to meet this standard. It might be noted that few other courses of study at universities have grade point requirements, other than the 2.0 average normally required for continuation as a student in good standing.

A handful of colleges and universities have established grade point averages higher than 2.5 for entry to teacher education, but when we asked respondents to predict future changes, only seven indicated that a grade point requirement higher than 2.5 was being considered.

Another standard that is increasingly being used to regulate entry to teacher education is a minimum score on either the Scholastic Aptitude Test (SAT) or the American College Test (ACT). While only four states had minimum SAT or ACT score requirements, 63 of the 96 colleges and universities that provided relevant data had established such a standard by 1987, or had increased the minimum score they had previously required. Nine institutions dropped such a requirement, usually in connection with increases in the grade point average required for admission. Unfortunately, the data we have do not permit us to estimate the minimum SAT or ACT score typically required because, unlike the strict enforcement of grade requirements, few institutions have set cut-off scores for SAT or ACT score requirements (such flexibility is recommended by the test makers).

Concern about charges that many teacher candidates possessed substandard academic ability has led 11 SREB states to require, as a condition for admission to teacher education, the passage of tests of so-called "basic skills," such as the Pre-Professional Skills Test (PPST) prepared by the Educational Testing Service or a state-developed test.

Many colleges and universities are requiring the maintenance or betterment of the minimum grade point average as a condition for successful completion of the program. Of the 95 institutions that responded to the question about exit requirements, 71 percent indicated that they had either added or increased the grade point average students must have to complete their program and be recommended for certification.

So far as we can determine, no college or university of its own accord has required a minimum passing score of teacher candidates on written tests of teaching knowledge, general education, or communication and computation skills other than those that are used to measure performance in courses taken. A number of states, however, have instituted such requirements by requiring passage of either the National Teacher Examinations (NTE) at a given percentile or score or a state-developed test. Nine of the 15 states require either one or all three parts of the NTE as a condition for teacher certification; therefore, the colleges and universities in these states report such requirements. In the six other states, subject area tests are required; two of these states also have their own professional knowledge tests. State evaluation plans, which are administered during the first year of teaching, also have a direct effect on teacher education curricula.

Consequences. Not surprisingly, higher standards for admission to teacher education have resulted in increasing the overall academic ability of those preparing to be teachers and

programs becoming more selective. With the important exception of historically black institutions, higher standards and tests of the sort imposed have not been accompanied by declines in enrollment in teacher education programs. Half of the colleges and universities studied report that they are accepting a lower proportion of applicants; fewer than 20 percent report having to accept a higher percentage of those who apply than they did five years ago.

As Table 1 indicates, increases in the number of graduates certified to teach in elementary and middle schools were experienced by significantly more institutions than were decreases. Forty-four percent of the colleges and universities had fewer students completing secondary certification programs in 1986-87 than in 1981-82, while 40 percent produced more secondary teachers. Enrollments in special education, on the other hand, have decreased in more than half of the institutions and increased in only one-fourth.

Table 1

Students Completing Teacher Certification Programs
in 161 Colleges and Universities in the SREB States

1981-82 to 1986-87

	Percent of Institutions Reporting		
Level	Increase	Decrease	Same
Elementary	51	34	15
Middle School	44	32	24
Secondary	40	44	15
Special Education	23	54	22

Table 1 probably understates the positive enrollment trends being experienced by Southern colleges and universities. Based on current application and admission information from the surveys and data gathered in our six case studies, it appears that many teacher education programs are experiencing noticeable increases in enrollment in their undergraduate classes; this would not be reflected in the data we gathered on the certification of teacher candidates.

Many teacher education programs experienced significant reductions in faculty as enrollments declined in the 1970s and early 1980s. Now that enrollments have begun to increase, in some cases dramatically, many teacher preparation programs may be understaffed.

One way that colleges and universities cope with faculty overload is to use part-time faculty, who are paid much less per course than are full-time faculty. Forty-three percent of the institutions participating in our study are using more adjunct faculty to teach required courses than they did five years ago; only 13 percent are making less use of part-time faculty. The impact of this development on the quality of teacher preparation is uncertain. No doubt, some of this increase involves the employment of classroom teachers to help prepare new teachers.

Some reformers have argued that increased entry and exit requirements would actually cause increased enrollments. We cannot know from our data if this assertion is correct, but we think that factors other than higher standards are operating here. Most observers believe that increased enrollments in teacher education, which are occurring throughout the United States, (Higher Education Research Institute, 1988; Arends, Galluzo & Ashburn, 1988) can be traced to the greater importance attributed to the teaching profession by the reform effort, the widespread attention given to the availability of teaching positions, and increased teacher salaries.

The overall increase in enrollments in teacher education masks a decline in the number of minority students who are seeking the opportunity to teach. Only 22 percent of the colleges and universities surveyed indicated an increase in enrollments among nonwhite students; 44 percent indicated a decline. The reasons for this decline over the last five years are no doubt related to the increased opportunities nonwhites have in other professions and to the decline in the proportion of black youths who are attending college. But, evidence from other studies (Graham, 1987; Guthrie, et al., 1988) and our case studies leave little doubt that the introduction of written tests has diminished the size of the pool of black teacher candidates because blacks have not passed these tests at the same rates as whites and because the prospect of having to take the tests has discouraged some blacks from pursuing teacher education in the first place.

Interviews conducted during our site visits suggest that one other consequence of the introduction of higher academic standards for entry to teacher education programs may be a change in the way education professors see themselves and, perhaps, the way they are seen by other professors. As students who major in academic subjects such as mathematics and biology are denied admission to teacher education programs because of low grade point averages or poor performance on tests of basic skills, the idea that teacher education attracts a given institution's weaker students is called into question. This may lead to a change in the status of teacher education, at least at colleges and universities with relatively nonselective admission policies for all students.

Some of the faculty we interviewed reported that the exclusion from teacher education programs of the least academically able students may also result in more rigorous and demanding education courses.

The introduction of written tests to screen applicants for teacher education and teacher certification appears to have had little impact on the curricula of the colleges and universities studied, except at historically black institutions where there has often been an institution-wide effort to ensure that students who want to teach have the opportunity to do so. On the other hand, the introduction of assessments of teaching performance during the first year of teaching has shaped the curricula of the teacher education programs in those states with such tests; the impact is greatest in those states (for example, Florida) where the approval by the state of teacher education programs is tied to the performance of an institution's students on these assessments. Teacher educators we talked to generally believe that this has resulted in a narrowing of the curriculum and more attention to specific teaching skills than to coursework in learning theory, child development, and educational philosophy, which have been considered to be essential foundations of the profession.

A seemingly perverse consequence of state-mandated GPA requirements may be that they will exclude some students from selective colleges and universities from entering teaching. In such selective institutions students who do not have a C+ average may be smarter and more knowledgeable than students who maintain qualifying grade point averages in nonselective institutions with less rigorous curricula and grading practices.

Educating Teachers in the Liberal Arts and in the Traditional Disciplines

Changes. Most critics of teacher education have been concerned about both the breadth and depth of the coursework other than education courses that are taken by students preparing to teach (see Southern Regional Education Board, 1985). We asked those we surveyed to tell us about changes taking place in the liberal arts (general education courses) required of students who were preparing to be teachers. For whatever reasons, fewer than half of the institutions responded to this particular set of questions. Drawing conclusions about course requirements from this weak response is, therefore, dubious. From the responses we did get, it seems that there is a decided trend to increase the number of general education courses required of teacher candidates; this appears to be true for all types of certification (elementary, secondary, etc.). At the same time, institutions also seem to be increasing the number of professional courses required; most apparently involve the number of field-based education courses students must take.

Many observers of teacher education have noted that little effort has been made in most colleges and universities to explicitly link the content and process of courses in the liberal arts, including academic majors, with courses in education. Seventy-five of the colleges and universities that participated in this study report that they have made an effort to address this concern, while over half apparently have not.

The ways that those seeking to link liberal arts courses with education courses undertook this challenge were quite diverse. Only two approaches--adding more subject matter to methods courses and joint course development--were attempted by more than a handful of institutions; these two strategies were pursued by 14 and 11 institutions, respectively.

Efforts to link course content across an institution's curriculum are much more prevalent than efforts to ensure that prospective teachers are taught in ways that model strategies prospective teachers are being taught to use. Indeed, even raising this issue is seen to be conflict-producing on many campuses. Classroom style is perceived by many professors to be a matter of individual discretion and not subject to prescription.

About two-thirds of the colleges and universities surveyed require students seeking certification in secondary school to major in a subject other than education; some 10 percent of these institutions have established this requirement within the last five years. An additional number of institutions--we cannot determine from our data the exact number--require intensive study in a single subject for which the student seeks certification, but the number of courses so required falls short of the requirements set by disciplinary departments for their majors.

Few colleges and universities in the South now require a major other than education for students seeking certification to teach in elementary or middle schools or in special education. Some states, however, will soon require all teacher candidates, regardless of certification level being sought, to major in a liberal arts subject or an interdisciplinary field taught outside the education school or department. North Carolina, Tennessee, Texas, and Virginia have enacted such policies; other states have this requirement under consideration.

Consequences. Almost half of the colleges and universities we surveyed report that they are seeking a more coherent education for prospective teachers. On the other hand, the questionnaire data and the information we gained from our campus visits suggest that efforts at integration and coordination involving changes in course content or course-to-course

articulation are often the result of individual faculty members teaching specific courses rather than full-scale, institution-wide responses. We cannot discern more than a dozen exceptions to this generalization. Perhaps the clearest institution-wide commitments are found in a number of historically black institutions where efforts are being made, with some notable successes, to infuse the entire curriculum with attention to the development of communication and test-taking competencies.

SREB (1985) has reported that arts and sciences and teacher candidates typically take more credit hours than are required for a four-year undergraduate degree. It appears that changes being made in course requirements for prospective teachers essentially add courses. Few courses are eliminated or consolidated with other courses. This means, of course, that it is becoming increasingly difficult for students to qualify for teacher certification within a four-year undergraduate curriculum.

The Sophistication and Rigor of the Professional Curriculum

Changes. The charge that college courses focusing on pedagogy are less demanding intellectually and less scholarly in content than the bulk of the college curriculum has been a central criticism of teacher education for decades. Teacher educators argue that if this assertion was once true, it is no longer, and that those who make such charges have not looked closely at what is now being taught. It is difficult to know whether teacher educators or their critics are right. Academic rigor is an elusive concept, and even if there were an accepted definition, to assess it one would have to examine the content of a large number of courses, the level of content mastery expected of students, and how the courses were taught. No such study has been conducted.

Our questionnaires did not ask directly whether efforts were being made to increase the intellectual demands being made on students. We did ask about changes in philosophy and changes in instructional strategies, and invited respondents to identify any changes being made that they considered particularly important. In addition, at the six universities we visited, we focused on curriculum changes. By piecing together the data gleaned from this information, we estimate that about half of the institutions participating in our study have been engaged in efforts to revise their teacher education curricula in ways that demand more of students and embody recent research on effective teaching in elementary or secondary schools.

The other pattern in curriculum reform which is evident involves efforts to align the pedagogical curriculum with new state-level teacher evaluation criteria or with the knowledge

being tested by state tests or the National Teacher Examinations. Such alignment efforts are the exception, rather than the rule, however. Some institutions believe that they already cover the related material; some feel that the tests and evaluation practices are trivial and/or invalid measures so teaching specifically for such tests and evaluations would be unprofessional.

We want to emphasize that we are focusing our attention on program-wide changes in curriculum. No doubt, many individual faculty have been revising their courses at institutions where there is no organizational push for change.

Consequences. Given the readiness of state policymakers to directly or indirectly limit the number of education courses that may be required for certification and to establish alternative certification procedures that bypass much of the teacher education curriculum, there seems little doubt that many critics of teacher education are unconvinced of the value of much of what prospective teachers are taught about teaching. Changes that have taken place in teacher education programs seem not to have allayed this skepticism.

Despite the willingness of many critics of teacher education to define how "well educated" a teacher is by the number of courses he or she has taken in traditional academic disciplines, many of the teacher educators we surveyed and interviewed seemed confident about the rigor of their curricula. We also found faculty and administrators from the arts and science departments to be less critical of the teacher education curriculum than one might expect. In general, it appears that arts and science faculty and administrators believe that changes for the better are occurring in the professional courses taken by students seeking certification.

It seems reasonable to assume that some of the assumptions about the simplicity and superficiality of education courses rest on three perceptions: (1) many teacher education students are thought to have relatively low academic ability, (2) because many education professors came to academia after working in schools, they are more committed to professional training than to scholarly pursuits, and (3) heavy emphasis is placed on field-based vocationally oriented training in many teacher education programs. It follows that, as academic requirements for admission of students to teacher preparation have been upgraded, courses offered in education programs will be seen as more rigorous. And, improvements in the academic ability of education students resulting from higher admission requirements have led most of the education professors we interviewed during this study to ask more of their students.

Questionnaire responses also indicate a clear trend toward more emphasis being placed on research capabilities of education faculty in new hiring, promotion, and salary increase decisions. The increased emphasis on the scholarly productivity of education faculty may account for the apparent improvements in the status of schools and departments of education within some universities and colleges. At the same time that institutions of higher education are placing increased pressure on education faculty to engage in research, state agencies governing teacher certification, often acting on legislative mandates, are increasing the amount of field experience college students must have in schools before they become teachers. Thus, education schools and departments find themselves confronted with somewhat conflicting demands that they be both more rigorous academically and more relevant to the demands of employers who are perceived as caring more about practical skills of new teachers than about the sophistication of theory and methods which institutions of higher education value so highly.

Practice Teaching and Field-Based Coursework

Changes. Sixty-four percent of the responding institutions report increased field requirements; only two percent report a decrease. Forty-nine percent of the institutions listed increases in the amount of time teacher candidates spend in field experiences as one of the three most important changes made in the way they educate teachers. As noted earlier, the addition of requirements for more hours of field-based learning in the preservice curriculum has not been accompanied by decreases in the number of hours of instruction required in courses offered on college and university campuses. Before a student is certified to teach, 60 percent of the institutions require between 11 and 15 weeks of practice teaching; 23 percent require less than this; 14 percent require more.

The trend toward increased field requirements comes at a time when research on preservice teacher education is increasingly questioning the popular assumption that more field experiences contribute to the effectiveness of beginning teachers (Evertson, Hawley and Zlotnik, 1985; Malone, 1985). Most of the impetus for increased emphasis on field experiences in education courses and more time spent in practice teaching seems to be coming from outside college and university faculties, such as state legislatures and classroom teachers. In response to the question, "What changes in philosophy are reflected in your approach to the education of teachers?" only 10 institutions indicated that they had increased their commitment to more field-based learning.

Consequences. We have speculated that the considerable time teacher education students spend away from the college or university campus learning skills and observing is one reason

why education curricula often are not seen, especially within institutions of higher education, as academically rigorous. The perception within universities and colleges that teacher education curricula are not demanding is a major reason for the relatively low status of schools and departments of education on college and university campuses. This, in turn, means that teacher education is seldom a high priority on most campuses, especially in those institutions that enjoy the highest prestige. When under attack, teacher educators have seldom enjoyed the public support of their colleagues or the leaders of their institutions. Indeed, in some cases, university faculty from other fields have been leading the attack. The point of all this is that teacher education is being pulled in two directions at once. To the extent that demands are met to prepare prospective teachers who have the practical skills that school officials and others believe beginning teachers need, teacher education will tend to be seen as vocational and thus "mickey mouse" within the university. Low status within the university translates to low status outside the university.

Teaching and supervising college students in school settings usually involves much more faculty time than on-campus classroom instruction of an equivalent number of students. Because many institutions place greater emphasis on research productivity in hiring and promotion decisions, increased requirements for field-based or clinical learning experiences appear to be raising the anxiety levels of junior faculty. Research universities have "solved" this problem in the past by relegating the most labor-intensive aspects of the teacher education curriculum to graduate assistants or persons who do not have regular faculty appointments. If other institutions follow this practice, the nature of the interactions among teacher education students and faculty at regional university campuses and liberal arts colleges could change.

One possible consequence of requirements that field experiences be made a part of more education courses is that arts and science faculty members who have taught courses without the field component may be reluctant to add this on the grounds that it will weaken the course. This is the situation at some research universities and could reduce the involvement of arts and science faculty in the teacher education curriculum.

Extended Teacher Preparation

Changes. A number of proposals for reforming teacher education, most notably those of the Holmes Group and the Carnegie Forum, have recommended that teacher preparation either extend beyond the undergraduate years or begin with post-baccalaureate study. About half of the institutions in our survey offer post-baccalaureate teacher certification programs, but only 15 of these indicated that they did not offer a program in which undergraduates could be

prepared to teach. While the idea of extended programs is in the wind and has been widely discussed, not only in institutions of higher education but by state legislative committees and teacher education reform councils, SREB states thus far have not mandated programs requiring a post-baccalaureate year of preparation prior to entry to teaching. Indeed, SREB has argued against setting policies that require extended teacher preparation and some state policies--including those in North Carolina, Tennessee, Texas, and Virginia--have explicitly supported reform within the four-year model.

It is difficult to predict the extent of the response among institutions of higher education to current proposals for extended programs. A handful of the institutions in our study indicate that they have recently implemented such commitments or are in the process of doing so. When we asked respondents to indicate the changes in program or philosophy that were most important, only four named extended programs. However, when asked to identify important changes they anticipated making in the next few years, 20 institutions indicated that they were considering the possibility of establishing extended programs as the dominant mode of teacher education on their campuses.

Consequences. The data gathered for this study do not allow us to assess the effects of those extended programs that have been implemented over the last five years. One of the sites we visited was the University of Florida, where a five-year program for the preparation of secondary teachers was implemented in 1984. Reports on the impact of the change prepared by the University of Florida indicate that enrollment in teacher preparation programs has increased and that the response to the new program both from within the university and from local schools has been positive.

Instructional Strategies in College Courses

Changes. Recognition that one of the most important ways prospective teachers learn to teach is by observing how their teachers teach has led some reformers (though not most) to call for improvements in the way college and university teachers teach. So far as we can tell, no institutionally supported efforts are underway to align the teaching strategies of college and university professors with those being taught to teacher candidates.

We asked our respondents from schools and departments of education whether "significant changes in the instructional approaches used in preparing teachers" had been made in the last five years. Seventy-two percent of the institutions asserted that such change had occurred. This overstates the changes made in instructional strategies because the way the question was asked allowed respondents to include changes in both curriculum and instruction.

Nonetheless, it is clear that the move to more field-based coursework has resulted in changes in the way teacher education students learn to teach. Other than the uses of field experiences as a way of facilitating learning, the most common change in instructional methods has been to introduce students to how computers can be used in teaching. About one fourth of the institutions reporting changes in instructional approaches within the education-specific component of the teacher preparation program are making more use of computers in courses offered to prospective teachers.

Consequences. Our data do not speak to the effects that changes in instructional strategies are having on how much students preparing to be teachers learn or what they learn. Efforts to influence the teaching practices of college professors may be the most difficult reforms to make. Such changes are difficult to legislate, difficult to implement, and difficult to monitor.

Summary

Considerable change is taking place in the way teachers are being educated. Most of the survey respondents believe that the most significant changes have occurred in the standards for admission to and exit from teacher education programs. Demands from outside universities for changes in curricula seem more often to be met by adding courses or field experiences within courses than by deletion of subject matter taught. At the same time, it is clear that the proportion of undergraduate coursework taken in education by those preparing to be teachers is shrinking. Indeed, some SREB states, directly or indirectly, are constraining the number of education courses that students receiving a bachelor's degree are allowed to take.

It is too early to know whether the changes taking place in the way teachers are educated will improve the quality of teaching in elementary and secondary schools. These changes seem not to have decreased the number of white college students seeking to teach. On the other hand, requirements for entry to teaching that involve written tests seem to have contributed to the current shortage of black teacher candidates.

In our judgment, the pace of change in teacher education programs is accelerating. The first response to external pressures by many teacher educators may have been defensive and tentative. But almost everywhere, faculty committees--sometimes, but infrequently, comprised of persons from throughout the college or university--have been or are engaged in rethinking and reformulating curricula. To a lesser extent, different strategies for teaching prospective teachers are being considered.

Critics of teacher education may conclude that institutions of higher education are moving too slowly. While we think of ourselves as critics of much of what has been happening in teacher preparation programs and of undergraduate education generally, we believe that speed of response is an inappropriate test of whether adequate improvements are being made. The fact is that there is relatively little research upon which to base changes in college and university curricula and the available research does not support some of the more popular demands being made for change (for example, increased preservice field experiences). A number of institutions that responded to our questionnaire indicated that they were engaged in comprehensive self-studies. Some commentators on this study have claimed that we took our snapshot a year or two too soon to capture an accurate image of the readiness of teacher educators to pursue new directions.

It seems worth noting that demands for change in teacher education have not been accompanied in most states and institutions by resources to facilitate change. While many policymakers have recognized that changing the behavior of teachers and the curricula of schools will require investments in the professional development of teachers, the only SREB state that has recently provided significant resources to institutions of higher education to facilitate changes in the professional capabilities of college and university professors is North Carolina. In that state, funds have been appropriated to develop new models of clinical training and provide other faculty development programs on campuses.

KEY CONDITIONS IN EFFECTING CHANGE

The preceding sections focused on describing the kind of changes that are occurring in the education of teachers in Southern colleges and universities. We turn now to examining key conditions contributing to effective change processes. The surveys to chairs of education departments and deans of colleges of education and to deans of colleges of arts and sciences provided the data for identifying the substance of general changes; these survey data also gave some indication of important elements in the process of change. Site visits to six universities deepened our understanding of conditions important to the success of the change process. We use selected examples from the institutions as we focus on what the evidence from this study (as well as other studies of change) suggests are salient factors when change processes are effective.

The research on change in organizations is extensive but diverse. Three prominent approaches to understanding organizational behavior and change informed our examination and analysis of the changes occurring in the education of teachers: the complex organization approach, the conflict theory approach, and the diffusion approach.

The complex organization approach emphasizes that universities and colleges must be studied in relation to the environment. Embracing open systems theory, this approach assumes that organizations engage in exchanges with their environments of inputs and outputs. Specifically, in a healthy exchange, the environment provides necessary inputs, while the organization reciprocates by producing acceptable outputs and meeting environmental demands. This study's emphasis on the effect of societal expectations and specific state policies in changing the education of teachers builds on the open systems model's focus on the environment-organization relationship. The complex organization approach to understanding change also suggests that, as a system, an organization consists of interrelationships among units or parts. Changes in one part of the organization affect other parts. Educating new teachers is not a responsibility confined to one unit within a university or college. Consequently, understanding changes in the education of teachers requires--at least--examination of a number of organizational components within an institution.

A second theoretical approach to the study of organizational change is conflict theory. This approach emphasizes the important role that multiple interest groups play in decision making within an organization. Any change in an organization must be negotiated through the power bases and interest orientations of various interest groups. Cognizant of the assertions of this theoretical approach to understanding organizations and change processes, we have been attentive to the roles of interest groups outside of and within the institutions.

The diffusion approach to explaining change focuses on the processes through which innovations spread across organizations and, more pertinent to our study, the stages through which a change progresses as it becomes embedded in a single institution. In conducting this study, we have assumed that effective change usually requires some period of time and have probed to learn about the processes through which changes legislated by state or accreditation policies have been adapted at the institutional level.

Awareness of these three theoretical approaches to examining change guided our visits to the six universities. The purpose of these visits was to learn how each institution's change process had developed and what factors or conditions were common ingredients in situations where change was occurring with some success. The complex organization approach to change led us to inquire specifically about environmental factors (such as state legislation or NCATE standards) as forces for change. Additionally, this theoretical approach as well as conflict theory contributed to our probes into the various interest groups inside and outside the university, the power and influence brokered by these groups, and their role in the change process. The diffusion approach to change heightened our awareness that a change usually progresses through various stages, and that the conditions necessary for supporting the change may vary in importance at the various stages.

Grounded in these theoretical perspectives, we interviewed education and arts and sciences deans, faculty in education and in arts and sciences, senior institutional administrators, members of committees that concern the preparation of teachers, and students learning to be teachers--at each of the six universities. We learned that a state mandate, general societal concern, an energetic dean, a group of faculty, taken alone, seldom ensure that a substantive or permanent change is effected in an institution's approach to educating future teachers. Rather, the presence and interaction of a number of factors or conditions seem to be critical. The effectiveness of attempts to improve the ways teachers are educated is increased when environmental, organizational, and cultural conditions are taken into consideration in planning, formulating, and implementing change. For each set of conditions, we discuss specific issues of importance.

Environmental Conditions and Problem Articulation

Environmental conditions that influence changes in teacher education are external to the college or university. The most important of these conditions appear to be state policies, professional norms and trends, pressure from organized interest groups, demographic changes, and the general climate of public opinion, as it is reflected in the media. These conditions, in fact, seem to be pushing institutions to change, though the directions they have been

signaling--aside from general calls for higher standards for teacher candidates--are not always clear. The overwhelming reality that sets the context for change in most institutions is state policy. Changes in NCATE accreditation standards that went into effect in 1986 are contributing to environmental pressures for change, but since many states are also using the new NCATE standards in formulating their certification guidelines, it is often difficult to determine which policy initiated the change. It seems clear that state policies are more sensitive to educational reform pressures than are most institutional policies, and institutional change frequently has been in response to, or in anticipation of, changes in state policy. This is not to suggest that teacher educators are mere spectators in the policy process. We found several instances where deans or prominent faculty took an active role in shaping state policies. But such cases are relatively rare, given all of the policies coming forth from Southern states.

Despite the fact that the external pressures for changes in the way teachers tend to be educated are similar for institutions within a given state, the institutions we studied have reacted quite differently to these pressures. One might attribute variations in response to differences in conditions and capabilities within the institution, and this is almost certainly true. Not surprisingly, the actions of individuals, particularly those in leadership roles, seem to be a critical factor in initiating and sustaining the change process. For substantial and institution-wide change to occur, it appears that not only must environmental pressures or conditions for change exist, but they also must be acknowledged as "problems," and then interpreted and articulated by individuals who have the power to bring about change.

Responses to Pressures in the Environment

In some instances environmental pressures seem to have simply placed added strain on already beleaguered units; in others, the national spotlight on educational reform and pressures from the state or from national accrediting bodies or agencies that approve the teacher education programs have created opportunities not only for substantial change in the way teachers are educated, but for increased or renewed status for the teacher education unit within the institution. For some institutions, the initiation of the change process was viewed as a "now or never" situation. At the University of Florida, for example, declining enrollments coupled with pending changes in state certification policy made some kind of action mandatory, and major program revision was facilitated. In Mississippi, state law established competency-based evaluation as a requirement for teacher certification as of 1988 and required each institution to develop its own plan to prepare its students to meet state competency criteria. This policy served to support change at the College of Education at

Mississippi State University by legitimatizing a thorough examination by the faculty of the teacher education program and thereby accelerating reforms that were already underway.

Other examples of institutional changes related to state policy changes can be seen at the University of North Carolina at Greensboro (UNCG) where new academic specializations were developed in response to new state guidelines for middle school certification. At Norfolk State University changes in the way teachers are educated have been influenced substantially by a decision by the State Task Force on Education that students preparing to teach take a maximum of 18 hours in education and complete a baccalaureate degree in an arts and science discipline and by requirements that teacher candidates pass the NTE prior to being certified. (Ironically, pending requirements for a content major in revised North Carolina certification guidelines threaten UNCG's new middle school specialization areas.)

Not all institutional change has been influenced by changes in state regulatory policies. In Tennessee and Kentucky, changes have been influenced more by state and national reform movements relating to education generally than by state policies specifically relating to teacher preparation. At Murray State University in Kentucky, the national concern about the relationship between quality education and economic welfare influenced efforts to revitalize the teacher preparation program. At both Murray State and Middle Tennessee State University, concern within the teacher education professional associations (such as NCATE) and the national movement for research-based school improvement led to changes in requirements for entry to and exit from teacher preparation programs and to changes in the curricula.

Perception of a Problem

While one might expect the environmental pressures to lead directly to change, such changes may be limited to minimum response in the absence of at least two other conditions. First, key institutional leaders must recognize the pressures as real problems that warrant attention for reasons faculty and administrators, whose cooperation is needed, would find persuasive. At several of the institutions we studied, the deans recognized problems that were not being addressed by specific state mandates. At Norfolk State University in Virginia, for example, the dean of education anticipated the increasing imbalance between the number of black children in the schools and the number of black young adults interested in teaching as a career. Consequently, Norfolk State's change process in teacher education has been not simply a perfunctory response to legislative regulations, but rather a deeper effort to grapple with an issue defined as an institutional and national problem.

At Murray State, the president of the university identified the status of the College of Education within the institution as a problem inviting attention by the university and tied this need to the role of the university in strengthening the economic and social welfare of the region. Even where a change process begins simultaneously with, or in direct response to, external requirements, successful change that goes beyond superficial responses seems to occur when institutional leaders view the legislated requirements as an expression of a more broadly defined need in teacher education. In these institutions, environmental pressures are viewed as problems inviting solutions or, in some cases, as opportunities to be at the forefront of a state, regional, or national reform movement. Moreover, those who provide leadership in linking change in teacher preparation to the need for educational reform need not be the formal leaders of the institution.

In some cases, a small group of faculty came together to initiate specific proposals for change or to build upon changes introduced at an earlier time but the implementation of which had been incomplete. For example, at Middle Tennessee State faculty members active in the effective schools movement on the national level provided expertise and legitimacy to an effort to infuse the teacher education curricula with content related to effective schools. Another group of faculty used the presence of an affiliated public school to integrate the clinical training more fully with elements of the curricula. In this institution, the initiatives of faculty members seemed to be encouraged by their perceptions that the university president and the dean of the school of education saw a need for change and that change efforts would be welcomed even if they would not yield new resources. It appears that education faculty initiatives also were facilitated by a history of involvement in teacher education by faculty in other colleges of the university so that the education faculty saw themselves as advancing goals that were shared not only by administrators but by their colleagues.

Interpretation and Articulation of the Problem

If external pressures are to be seen as invitations to innovation rather than as regulations that must only be complied with, it seems important for one or more institutional leaders to interpret and articulate to others the problem(s) that motivated the pressure. This articulation is a first step in eliciting the interest, time, and involvement of faculty and administrators in developing a solution that goes beyond minimum compliance.

The case study institutions provide examples of the importance of clear statements about the problems of teacher education if change is to occur. For example, at the University of Florida and Murray State University, the deans' awareness and articulation of the national

reform issues--legitimatized by their leadership roles at the national level--appear to have been key factors igniting commitment and involvement on the part of faculty to explore possible changes in preparing teachers, though the circumstances of pending changes in state requirements and declining enrollments in teacher education undoubtedly set the stage for changes. At Norfolk State University, some eight years ago the education dean discussed with the university president her observations and concerns about the decline in the number of black teachers. After being convinced by her argument, the president then became the dean's partner in calling meetings of faculty from across the university at which the problem was presented and responses explored. An important aspect of these meetings was the gradual emergence of a shared perception among the institution's faculty concerning the nature and importance of the problem. At Murray State, the president saw the need to strengthen the school of education as a way to gain support for the university within the region and openly identified the school of education as a major source of the university's future success in fulfilling its mission.

Someone (often, but not always, the head of the school or department of education) must recognize pressures as pertinent problems and articulate these problems to faculty and administrators in a way that calls forth collective attention. What are the ways this is done? There is no one way. Approaches that have been most successful in the institutions studied appear to link the problem to be solved to the historic missions or values of the college or university. Thus, successful change efforts build upon rather than depart from the organization's culture. But linking environmental pressures to internal action can involve other strategies too, including a call for the education department or school to provide leadership to other teacher education programs in the nation or region and a concern for institutional survival.

Organizational Conditions

The recognition and articulation of a problem are necessary initial steps in effecting change in teacher education. Our study led us to conclude that several institutional conditions also are important. First, someone must perceive that he or she has authority and influence to address the problem. Second, sufficient resources must exist within the organization. Third, appropriate incentives to encourage support for the change must be available. And fourth, workable organizational structures must be in place or be created.

Clear Influence and Authority

In most cases, successful change in teacher education appears initially to depend on a person--or, less often, a group--with the authority and influence to set the change process in

motion. Success seems to relate to an active and assertive stance by such a person to use his or her authority as the platform from which to support the change process. Frequently, we found that the education dean is the key actor with formal and informal authority to initiate change; sometimes, the university president strengthens the authority asserted by the dean by adding senior administrative support. Only in some of the small number of cases where he or she had responsibility for the teacher education program did we find an arts and sciences dean claiming jurisdiction or authority over decisions relating to teacher education. In fact, in only a few cases were leaders in arts and sciences involved in substantive ways in the change process, though all who were interviewed during the site visits were aware of what was happening and had had some role in the process. As might be expected, the level of involvement of liberal arts faculty and administrators appears to be a function of the degree to which teacher education is seen as a total institutional--not just school of education--responsibility.

Three of the case study institutions provide examples of the key role played by education deans who acted affirmatively and assertively on the basis of their authority and influence over teacher education. At the University of Florida, the education dean consulted state policymakers and local school board officials about issues in teacher education, and received general encouragement to consider redesign of the preparation program. He then appointed a planning committee to evaluate the university's program for teacher education. Simultaneously, the dean requested the provost's support for a major reform effort and was assured that the college of education would not be "penalized" for fluctuation in enrollment as changes were implemented. Acting in his jurisdiction over teacher education, the dean secured political, community, and institutional support for reforms to be developed by his faculty. This not only set the stage for change but reduced the threat.

At Murray State University, a new president decided that the school of education should be rejuvenated and given greater visibility. With these goals in mind, a new dean was selected because she was seen as a leader in efforts to reform teacher education nationally. Building on the president's support, the dean has used her experience in initiating institutional change and the authority of her position to reorganize the school of education and begin various change processes.

For years the education dean at Norfolk State University has used her authority and position as the basis for encouraging change. Almost a decade ago, she enlisted the help of the university president and together they began to remind faculty that the preparation and retention of black school teachers is a university-wide problem. She has coordinated

institution-wide faculty conferences on teacher retention and on student needs in regard to the National Teacher Examinations, and has organized and prepared faculty across the institution to tutor teacher education students.

As noted earlier, some deans used the recognition they had received nationally or regionally as a source of their influence within the university. In these cases, faculty granted the deans power because their views, in effect, had been legitimatized by external organizations.

Someone is needed to set the change process in motion; such a person usually has some authority for teacher education. The lesson seems to be that those interested in effective change need: first, to consider the potential sources and extent of their authority and influence, and second, to examine how to use authority most effectively as a vehicle through which to encourage reform.

The difficulty of investing people with authority to bring about change may be underestimated by central administrators and deans. Institutional administrators responding to the questionnaires sent to the school or college of arts and sciences reported little knowledge or awareness of the role of the institution's central administration in changes in the institution's programs to prepare teachers. We suspect that most university presidents and vice presidents would be surprised that they are not seen as having much interest in improving the education of teachers, but few have been very active on this issue. Demands for change have been part of the professional life of teacher educators for many years, as has the perception that ambitious plans requiring new resources or institution-wide change will be given little support. Murray State University provides a clear counter-example to the general situation. At this university, the president and vice president attended the faculty retreat that initiated the change process and, more than two years after this event, faculty recall that fact as evidence that the institutional commitment to teacher education was real. As the old song says, "Little things mean a lot"--if, we add, they have symbolic meaning and are strategically used.

Availability of Resources

Effective and permanent change requires resources of time, competence, and, sometimes, money. The particular level and balance among these resources will be different across institutions, but each must be considered.

Time. Sufficient time must be present in two respects. First, an institution must have faculty and administrators who can devote their time to evaluating the problems to be addressed, considering possible responses to the problems, developing proposed changes, training and preparing others within the organization, and implementing and monitoring the change process. At Mississippi State, for example, a task force of some 10 people invested many hours over two years in numerous meetings to envision and design a curricular innovation in the teacher education program. While the implementation of the new curriculum has begun, some components are still in the design stage, requiring even more hours of faculty time. An institution that wishes to effect substantial changes must be willing to reallocate the time of some of its faculty and administrators.

The problem of securing enough time for the people on whom change depends may be exacerbated by increasing enrollments in teacher certification programs. Most institutions in the SREB states report having lost enrollment and faculty slots during the 1970s and early 1980s. As teacher education enrollments have grown, and demands for time-consuming field-based instruction have increased, the number of faculty positions allocated to teacher education usually have not increased. This, of course, could limit the extent to which more ambitious plans are implemented.

The time issue also should be considered at the institutional level. The process of change includes diagnosing a problem, designing a possible "solution" or set of "solutions," and implementing these solutions. Even after implementing new plans, the process of fully embedding or incorporating these changes in the normal workings of an organization takes time. This may be more true for universities and colleges than for most other organizations because authority is widely distributed and the outcomes of change initiatives are difficult to monitor and measure. A university or college anticipating a revision in the way teachers are educated at that institution should be prepared for the change process to move through its various stages and should withhold the evaluation of the success of the new approach until sufficient time has elapsed. In some instances, such as with declining enrollments at the University of Florida, this institutional commitment to support change involves a realization that the situation may worsen before it begins to improve.

How long is long enough? The research on changes in both public and private organizations suggests that a really significant change in the core activities of an organization--especially one where the relationships between the strategies used to achieve goals and the outcomes hoped for are difficult to predict--will typically take years (Fullan, 1982).

Competence within the Institution. In designing new approaches to the education of teachers, institutions also must consider the particular strengths of their faculty and administrators. Do the faculty and administrators currently have the knowledge and skills to carry out the proposed changes? If not, do they at least have the appropriate backgrounds to acquire necessary new knowledge? If some faculty will need to develop new skills or knowledge, will the institution be able to provide necessary releases from other responsibilities as well as financial support? If some among the faculty do not already have the needed knowledge or skills, and if it is unlikely that they can readily acquire such knowledge, does the institution have the resources to add new faculty or to engage in significant efforts to help faculty achieve new capabilities? These are important questions to consider as changes are contemplated. A proposed new approach cannot be effective if the personnel resources are not in place.

As we visited institutions involved in changing the education of teachers, we found these questions to be especially important when the changes involved the integration of new technologies and techniques into the curriculum. Consideration of technical competence among the faculty should be entered into the plan for bringing about such curricular changes in what and how prospective teachers learn to think.

We have noted the relative absence of efforts to bring about more institution-wide coherence and consistency in the content and instructional strategies which prospective teachers experience. One reason for this is that most arts and science faculty have little training in how to teach, and thus will give little time to learning about methods being taught to teachers, much less to using these methods in their classes. Education professors, on the other hand, typically have little or distant backgrounds in the liberal arts. Thus, they seldom invest much energy in developing ways to explicitly use what students are learning in such courses as philosophy or sociology (outside the education program) in their methods courses. One might see this as parochialism. Or one might see it as the product of a lack of competence.

Commitment increases when faculty and administrators believe they actually have the ability to do what is proposed. Resistance may occur, not because of philosophical opposition, but because those who are asked to implement the change doubt their ability to do what is being asked of them. Moreover, college and university faculty often find it difficult to ask for help to do things about which they are supposed to be experts. Few institutions have taken seriously the need to provide new learning opportunities for faculty. Few states have even considered this need in designing policies aimed at improving teacher education.

Equipment and Money. If equipment or additional financial resources are needed to bring about a planned change, will these be available? A plan for change should be realistic given the particular institutional context and its constraints.

When is money important? Three of the most obvious needs in the institutions we studied are: (a) the need to staff remedial programs for students because such programs do not often bear credit for graduation; (b) the need to finance faculty time to plan, learn new things, and implement and evaluate innovative practices; and (c) the need for new equipment and facilities, especially those required to foster the sophisticated use of electronic technology throughout the curriculum.

Appropriate Incentives. Appropriate incentives to enlist the involvement and support of individual faculty members seem to be another structural condition relevant to the success of efforts to change teacher education programs.

One way to increase faculty support and interest in a proposed change is to link faculty involvement with some degree of prestige and honor, thus providing an intrinsically motivating reward. An example of this strategy for creating incentives was found at Mississippi State University where the change process involves major restructuring of the curriculum in teacher education to create new core courses. Planning and teaching these new courses is very time-consuming, which might serve to diminish the interest of faculty in participating. Attentive to possible faculty resistance to the time and effort needed to design the new courses, the task force coordinating the change process has, with the assistance of the education dean, cultivated a sense that invitation and selection to plan and teach the new courses convey honor, prestige, and respect for the faculty member.

An incentive for participating in change that attracts some people to the effort is the opportunity to shape their own future. The facilitation of change is aided, then, by giving meaningful chances to influence significant decisions to those who will be most affected by them. In most of the sites we visited, faculty played key roles in identifying problems and solutions. In each case, the dean sought to develop ownership of the plan among the faculty even if the plan developed was different from individual predispositions.

Another incentive for change is the prospect of strengthening the status of the organization of which one is a part. At Murray State, for example, as a result of statements and actions by university administrators which were reinforced by the dean, faculty came to believe that assertive action on their part would lead to a restoration of the school of

education's status within the institution. This, in turn, motivated many faculty members to invest enormous amounts of time, for which they received no extra pay or release time, in order to develop their plans for change.

Another incentive for change is the prospect that one can, by changing, be more effective in what one wants to do professionally. The willingness of several faculties to incorporate current research into their curricula reflects a growing belief among teacher educators (also reflected in new NCATE standards) that new teachers would be more effective if they had access to this information. Teacher educators want to educate effective teachers and, if change can be tied to an enhanced capacity to "produce" better teachers, this will be motivating. At Middle Tennessee State and the University of Florida, for example, faculty committees undertook reviews of research and identified a "knowledge base" that they determined was valid. The resultant knowledge-based change proposals made it difficult for opponents to openly challenge the changes without undertaking counter-studies. Since the faculty efforts to identify "what is known" were legitimatized by the overall faculty and/or the dean or department chairs, overt opposition was not tenable.

The chance to increase one's effectiveness in achieving a desired goal will be motivating to the extent one believes there is the need to do this and that the prospects of success are good. However, faculty get very little good feedback about their effectiveness and, like most people, they believe they are doing a pretty good job. (Research on self-evaluation in private companies shows that 75 percent of employees rate their performance above average). It follows, then, that performance evaluation <u>that is seen as valid</u> will facilitate change. At Murray State an effort is underway to develop measures of performance that the faculty will see as legitimate. Anticipating opposition to imposing standardized measures on faculty, the steering committee for the change effort gained agreement from the faculty that each faculty member would develop his or her own measure and that evidence on the results would be reviewed by the committee and the dean. Moreover, faculty with expertise in evaluation were given time to help their colleagues develop and assess the measures.

Special attention also seems to have been directed to eliminating disincentives. If faculty members perceive that involvement in planning or initiating new components in teacher education will have a deleterious effect on their progress toward tenure and promotion, many will be inclined not to contribute. The dean of education at Mississippi State recognized this potential problem and assured faculty who took substantial responsibility for developing major curricular change that they will not be penalized for the many hours spent on this effort. But even such assurances may not be adequate. The Mississippi State faculty believe

that they should not only be exempt from penalty, but that their contributions should be viewed as strong, positive factors in tenure and promotion reviews.

Another disincentive that must be addressed is concern that proposed changes are a threat to the survival of particular individuals within the organization. Understandably, faculty members who perceive that the end result will be termination of their own positions or programs will be disinclined to support the change process. One approach to this situation was employed by the dean of education at Norfolk State. Anticipating by several years the changes now underway, she held back on filling some openings during recent years in order to have some flexibility in assigning faculty once the changes began. She has been able, therefore, to assure faculty that the changes occurring will not terminate any positions of currently employed faculty.

Loss of one's position may be less of a concern than the prospect of losing a central role in the program, or of having the subjects one teaches diminished in importance, or of being expected to change the way one teaches. This appears to be less of a problem for teacher education reform in the SREB states because few institutions have demanded that course offerings be cut and changes in instructional practices have not been a major focus of change. The typical response to the notion that new material should be covered or new experiences included has been to add requirements without eliminating others. In the last two years, however, states have begun to place limits on the number of credit hours that can be required of prospective teachers in education courses (for example, Texas and Virginia) and academic majors (for example, Tennessee). Such constraints will surely increase the costs of change to education faculty (by reducing enrollment in their courses and the number of faculty positions), and thus reduce the incentives to take risks.

Availability of Workable Organizational Structures that Create a Wide Base of Ownership

The literature on organizational change indicates that the creation of a wide base of "ownership" within an organization contributes to successful and lasting change. The change process in teacher education appears to be no exception to this maxim. At each of the universities we visited, effective change processes were related to the existence or creation of organizational structures that cultivated such ownership. Various structures seem to work. At some universities, pre-existing committees are used; at others, new structures are instituted for the express purpose of handling the change process. The important thing is that some form of institutional governance structure that broadens involvement in decision making is used as the vehicle through which the change moves.

Examples of different but equally effective structures are found at Murray State University, Middle Tennessee State University, Mississippi State University, and the University of Florida. The organizational structure for change has been very participatory at Murray State. After a faculty retreat, 11 committees were established that included some arts and sciences representatives in addition to wide involvement of education faculty. A detailed strategic plan for the future of teacher education emerged from these committees. Changes at Middle Tennessee State developed out of the work of various subcommittees established among the faculty. These groups worked on parts of the curricula as separate committees, rather than as a larger, coordinated effort.

At Mississippi State and at the University of Florida, the organizational structures for developing the changes initially did not include large numbers of faculty. At Mississippi State University, the dean of education appointed a task force of respected faculty within the college and charged this group with examining and revising the teacher education program. The task force was careful to enlist the ideas of a wide range of faculty and to keep the faculty of the college informed, but intensive planning was carried out by the task force itself.

The process at the University of Florida also was centralized. The dean of education appointed a planning committee of selected faculty in education. After involving many faculty members, this committee planned the changes in detail. The changes were then brought to the full faculty for a vote.

Our institutional case studies lead us to the conclusion that changes in teacher education do not always require similar governance structures. However, some structure must be established, or designated if one is already in place, as the vehicle through which changes are formulated and initiated. The characteristics of these structures, the nature of their membership, and the way in which members are appointed are all contingent on the particularities of an individual organization. However, there are at least two things they have in common: First, they provide faculty with access to a role in deciding their own futures; second, these structures enjoy the support of the dean or head of the organizational unit involved. Everyone knows that whatever does happen in terms of change will come directly or indirectly from the structure that has been established.

One of the reasons so little institution-wide change is occurring in the way teachers are educated is that there are seldom effective structures for bringing about change across colleges or schools within universities. Intra-college councils on teacher education would

appear to be appropriate structures, but they seldom serve this purpose. Their members usually are chosen for reasons other than the commitment to change. Moreover, these councils seldom enjoy the active support of central administrators.

Cultural Conditions

Changes in teacher education seem to be brought about most effectively when leaders perceive and articulate environmental pressures and ensure that important structural conditions are in place. Additionally, our case studies suggest that leaders of change processes should attend to several cultural conditions.

Congruence with the Institution's Culture

Where the change process has been effective, the institutional leaders seem to have built on the values and historical background of the particular institution. Proposed changes in teacher education that diverge from or are incompatible with an institution's history may elicit feelings of dissonance among the very faculty whose support is needed. At some of the case study institutions, the leaders of the change processes explicitly articulated the link between traditional institutional values and the changes.

Norfolk State University provides a good example. The changes underway in teacher education are extensive, including a non-education-based major for prospective teachers and university-wide involvement in preparing students for the National Teacher Examinations. Though these plans might have been perceived as threatening developments, at least to the faculty in the college of education, instead they have been couched in the context of the long-standing institution-wide commitment to preparing black teachers. Since the faculty as a whole has always understood this institutional tradition, they appear to accept the particular demands placed on them at this time to involve themselves more actively in teacher preparation.

The University of North Carolina at Greensboro, which began as the state women's college, has a tradition of academic excellence in the preparation of teachers with a strong liberal arts focus. The development of academic specializations for middle school certification that has been at the heart of its change effort is congruent with this tradition. The central administration believes that graduate and undergraduate programs in education provide a special "niche" and opportunity for excellence for this institution, which does not aspire to be a major research university.

One way that these universities have fostered a sense that proposed changes relate to long-standing institutional culture is through the judicious placement of respected faculty

members on planning committees. When widely respected senior faculty are involved in developing and implementing the changes, they essentially serve as symbols of a link to the organization's past. Their involvement establishes representative norms that encourage the support of other faculty.

Another strategy for activating cultural conditions in support of change has been for the institution (for example, the University of North Carolina at Greensboro and Murray State University) to give increased prestige or authority to administrative units responsible for the education of teachers.

At Murray State University, teacher education had been diminished in status and resources in an explicit effort to downplay the institution's origins as a teacher training institution. A new president reversed this situation and generated support for institution-wide improvements by calling on the university's traditions and strong reputation in the region for preparing good teachers.

Balance Between Goal Clarity and the Need for Flexibility

In our discussion of environmental conditions, we asserted that the change leaders in our case study universities were clear articulators of a vision--a set of goals--for the way in which their respective institutions would prepare teachers. Goal clarity, we argued, is an important element in a successful change process. When change leaders offer frequent reminders of the purpose and focus of the intended changes, they do much to ensure that the result of the change process is actually what was intended.

At the same time, however, some flexibility in the implementation process helps the change develop a "fit" with the organization and its members. Every detail of the plan for change may not work as expected. Flexibility on the part of the institution as a whole and on the part of its individual members assists the planned change to adapt to specific organizational conditions. Furthermore, at the time of implementation, resistance on the part of some individuals in the organization may appear, though support--or at least acquiescence--had seemed the attitude at previous points in the change process. This resistance at the time of implementation may occur for some organization members when the import of the change fully comes to their attention. In such a situation, some flexibility on the part of the change leaders may assist individual faculty or administrators to find their "fit" with the change.

This discussion of goal clarity and the need for flexibility is presented here because we feel that change leaders who strive for a balance between clarity and flexibility are

essentially contributing to the cultural character of the institution. A university that places value simultaneously on moving toward articulated institutional goals and on maintaining some flexibility in the steps toward those goals is supportive of a successful change process.

Summary

Strong forces in the environment--especially state legislative enactments and accreditation agency guidelines--are pressuring colleges and universities to make changes in the way they educate students aspiring to be teachers. These strong forces themselves, however, do not ensure that successful and enduring changes will occur. Rather, a number of additional conditions are important contributors to the survival rate of efforts to change the way teachers are prepared.

First, in effective change processes, environmental pressures are identified, described, and interpreted by the change leader(s) (usually the education dean) to the university or college. Often, deans of education seem to use specific environmental pressures (such as legislation) as an opportunity to initiate ideas already considered or to think broadly and creatively about issues in the education of teachers. A critical factor in effective, enduring, and accepted change involves the ability of the change leader to articulate the institution's goals and vision for preparing teachers and to show the link between the proposed changes and the mission of the institution and the interests of its faculty.

Once external pressures have been acknowledged and interpreted, and a vision for change articulated, a set of what we have termed organizational conditions begin to influence the change process. This study has suggested that deans or others who want to bring about effective change should evaluate their sources of influence.

Leaders in situations where the change process progresses well seem simultaneously to cultivate the sources of their influence--leadership roles in the national dialogue concerning preparing teachers, formal authority, the ear of a top institutional administrator, support by strong interest groups within the institution, or in the surrounding community--and to use that influence as a lever for initiating the change process.

Other important organizational conditions include time flexibility, both in regard to individuals who will commit much time to develop the change and in terms of awareness across the institution that substantial change takes time and cannot be hurried. Furthermore, sufficient competence to develop and implement the planned change must exist among the

faculty, or resources must exist to acquire additional faculty with the needed skills. A particular change also may require new equipment or other financial investment.

We have observed also that a change supported by a large percentage of faculty who feel some ownership of the change will have more likelihood of long-term success. The case study visits especially brought to our attention the importance of change leaders attending to the incentives and disincentives that influence the involvement and support of individual faculty. Incentives--such as release time or increased recognition--that encourage faculty involvement in some aspect of the change, organizational governance structures that provide the vehicle for formal and informal faculty input in the change process, and the positioning of respected colleagues in key positions on committees concerning the change, create the organizational conditions necessary for embedding a change into an institution.

While change leaders are responding to environmental pressures and using or creating the kinds of conditions that foster change, they continually must remain attentive to what we have called cultural conditions. This study and other research on change processes indicate that effective and successful change efforts are congruent with the history, values, and beliefs of the organization. While a change process may involve new ways of educating teachers, the successful change processes we have seen have clear links to the organization's culture. Additionally, cultures in which goal clarity is customarily balanced by some degree of flexibility seem particularly supportive of the change process.

We turn now from our analysis of key conditions or factors that seem common in situations of successful change efforts. The final chapter considers the role of institutional leaders in the change process, addresses the problems of achieving institution-wide change, and concludes with some reflections on enhancing such change efforts.

CONCLUSION

Whether one believes that colleges and universities in the SREB states are responding adequately to those criticizing the way teachers are educated will depend on what institutions are considered, what grievances one has, and what historical perspective is taken. Most commentaries on teacher preparation suggest that, overall, the changes being undertaken and actively considered are more substantial and far reaching than those pursued in any previous period. Of course, much of this ferment derives from the natural concern for the quality of public schools and, more particularly, from state policies from which colleges and universities have no refuge. But the changes underway at some institutions go beyond the mandates of state directives.

This chapter will focus on four questions:

1. What role have college and university leaders played in changing the education of teachers?
2. What are the prospects for institution-wide efforts to improve the ways teachers are educated?
3. What suggestions can be derived from this study and related research about how to bring about change in the education of teachers?
4. How can public policy support change in the education of teachers?

What role have college and university leaders played in changing the education of teachers?

Nationwide, some 10 percent of all students at four-year colleges and universities are enrolled in teacher education programs. Given that teacher education programs are probably the most severely and consistently criticized academic activity of institutions of higher education, one might expect that college and university presidents and chief academic officers would be playing central roles in efforts to improve the education of prospective teachers. Moreover, influential groups like the Carnegie Forum on Education and the Economy and the Southern Regional Education Board have been urging college and university presidents to play greater role in reshaping teacher education. The evidence from this study, however, suggests that most presidents and chief academic officers are spending little of their time or influence in efforts to change the way teachers are educated.

We asked respondents to our questionnaire to identify any change that had occurred beca of an initiative taken by the central administration. Overall, only 29 of the 161 respondents

from schools or departments of education (about 17 percent) identified even one change that had occurred as a result of central administrators' actions. Moreover, these "initiatives" seem, on the whole, to be quite modest.

In 12 of these 29 colleges and universities, the focus of the change was not on the education of prospective teachers but on changes that affected all of the institution's students; three-fourths of these cases involved the revision of general education requirements for undergraduates. While such changes have a direct effect, the motivation for taking such actions does not appear to be the improvement of the education of teachers. Thus, it seems fair to say that college and university leaders have focused their attention on teacher education in only 10 percent or so of the institutions we studied.

In seven institutions, central administrators saw their role to be one of exhorting, with various degrees of insistence, the teacher education program to be more selective in its admission of teacher candidates and to increase the rigor of the curriculum. In 10 of the colleges and universities that participated in this study, the central administration (the president or chief academic officer or both) appears to have taken steps that led to significant changes focused on the education of teachers. In seven of these cases, the organizational status of the teacher education program was upgraded and new resources and/or authority was given to the program. In some of these colleges and universities, the central administration sought, by direct encouragement or the creation of a task force, to mobilize an institution-wide effort to improve the education of teachers. In others, the focus was on the teacher education unit. In one case, the status of the teacher education program was diminished.

Among those institutions that might be categorized as research universities, we can identify only one in which the president or chief academic officer played a key role in trying to improve teacher education.* This effort, which involved support for change within the teacher education program alone, was not initiated by the central administration on that campus.

Thus, while in a handful of colleges and universities central administrators have used their influence and authority to seek changes in the education of teachers, for the most part

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* Despite the absence of leadership from central administrators, teacher education at a number of research universities was undergoing significant change. These changes are often stimulated by the network of fellow deans or by the leadership roles deans and faculty members believed they should assume given the privilege and status their institutions enjoy.

they have not taken such leadership. In the absence of central leadership, efforts to improve the education of teachers usually has been left to teacher educators. As we have seen, some teacher educators have undertaken major change efforts, but many have not. It may be that the reticence of many teacher educators to move in very innovative ways is related, at least in large part, to the inactivity of the chief administrative officers who set the priorities of their colleges and universities.

It should be recognized that an absence of central direction is not the same as an absence of support for teacher education. No doubt, some central administrators perceive their institution's approach to the education of teachers to be of high quality and, therefore, focus their concern on other matters. It may be that college and university presidents and chief academic officers are more supportive of change in teacher education than the responses to our survey would suggest. But, their interest is influential only to the extent that it is recognized by other administrators and faculty. It seems likely that institutional leaders often overestimate the extent to which their priorities are known within their college or university. For example, in one of the universities studied, the president had taken bold steps to improve the status of the teacher education program and had spoken out at the national level on the importance of improving teacher education. Nonetheless, several faculty we interviewed were unaware that this president had given high priority to a university-wide effort to improve the education of teachers.

It may be that the involvement of central administrators in the education of teachers would be greater if the leaders of teacher education programs sought their participation more actively. Perhaps the perception of many teacher educators that their programs have low priority and will receive little attention from college or university leaders is a self-fulfilling prophecy.

All of the public institutions that participated in our survey are part of multi-campus systems of higher education. We did not specifically ask about the role of system-wide academic leaders or system governing boards, and no one volunteered that these individuals and agencies had any impact on changing the way teachers are educated.

Perhaps a different approach to studying changes in the education of teachers than the one we used would have yielded a different picture of system-level influence. The potential for system leaders and governors to use their authority to shape budgets and academic policies is suggested by the situation in Florida. In 1984, the chancellor of the university-wide system made it clear that she wanted the presidents of several university campuses to promote teacher

education reform. This apparently helped to create the climate of responsiveness to significant proposals for change initiated by the dean of the college of education at the University of Florida at Gainseville. But, shortly after she sought to establish teacher education reform as a priority, the chancellor resigned. As we note elsewhere, if top level leadership is to be effective, it must be sustained over time.

What are the prospects for institution-wide efforts to improve the way teachers are educated?

Many of the criticisms of teacher preparation point to the absence of institution-wide commitments to the education of teachers at most colleges and universities. There are at least three general ways that departments, colleges and schools of education can work collaboratively with other instructional units of the university to improve the education of teachers: (1) the alignment of course content with state certification requirements and with guidelines of the National Council for the Accreditation of Teacher Education (NCATE), (2) the articulation of courses within the university, and (3) the modeling of effective teaching practices.

Curriculum alignment with external requirements. So far as we can tell, all institutions engage in this type of activity, although the extent of their efforts appears to vary from the minimal alignment of course descriptors whenever requirements change to recurrent revisions of the curriculum as a whole. As one might expect, institutions that see themselves as having an historic role in the preparation of teachers are more likely than other institutions to engage in more comprehensive alignment efforts. The introduction of written tests of communication and computational skills for prospective teachers has been a catalyst for institution-wide collaboration in many of those colleges and universities whose students have had difficulty in passing such tests. Our sense is that while the tests themselves are often seen as invalid on these campuses, the mounting of a comprehensive response has often reaffirmed these institutions' commitment to the education of teachers.

Efforts at inter-unit articulation of course content within institutions. One of the challenges that all curriculum development efforts face is to sequence courses and integrate content across courses so that students can build on what they have learned as they move through the curriculum. Evidence from our surveys and visits suggests that such efforts at "articulation" of coursework related to teacher preparation are underway at 10 to 15 percent of Southern colleges and universities. The nature of these efforts varies widely. Faculty in 14 institutions have sought to add more subject matter to methods courses and faculty in 11 (there is some overlap) have engaged in joint course development across fields. (We cannot

tell from our data whether the first of these strategies involved collaborative efforts.) In a handful of cases, articulation is systematic and addresses a broad range of courses. In most institutions, such articulation is the product of commitments by particular departments or particular faculty working together to maximize what is to be learned in the limited time students have to experience that part of the curriculum.

College and university faculty tend to see the content of the courses they teach as largely theirs to define; thus, they tend to resist efforts to influence their teaching. This is most true at research universities. With some exceptions, we found that the most comprehensive efforts at curriculum alignment across organizational units were occurring at smaller institutions, especially those in which prospective teachers account for a significant share of enrollment and where the units involved report to the same dean. At most other colleges and universities, the responsibility for coordinating the different academic units involved in the education of teachers is vested in a "teacher education council" comprised of faculty and administrators from the various units. However, it is our impression that teacher education councils, with some exceptions, are seldom much more than discussion groups who approve or disapprove rather than instigate or give direction to changes. For the most part, they appear to "live and let live," protecting, by common agreement, previously agreed upon prerogatives of the academic units involved. In some cases, teacher education councils become the battlegrounds in which some instructional time is wrested from the education program and reallocated to other colleges. But such conflict is rare. It may be that teacher education councils (whatever they are named) are frequently a manifestation of what Murray Edleman (1964) calls "symbolic politics." They appear to be carrying out certain coordinating functions and, thus, relieve those in the central administration of the need to attend to inter-school integration.

Exemplary teaching practices. It is widely believed that prospective teachers learn about teaching from the ways they have been taught. Critics of undergraduate education in general, and teacher education in particular, have argued that college and university professors often do not manifest exemplary practices. We do not know if this criticism is valid, but it does seem clear that most professors, except perhaps those directly responsible for teaching about teaching strategies, make little effort to know about, much less demonstrate, the instructional strategies explicitly being taught to prospective teachers.

Even when we interpreted the responses to our surveys and interviews liberally, we found only seven institutions where faculty outside of the teacher education program were involved in organized efforts to improve the education of teachers by improving instructional

strategies or using methods being taught in the teacher education program. One reason there is more concern for coordinating course content than teaching methods is that the norms of colleges and universities discourage efforts by colleagues and by administrators to influence how faculty teach.

All in all, the education of teachers is seen in most colleges and universities to be the responsibility of the education faculty. There is a willingness to adjust curricula to teacher certification requirements, but on the whole this willingness extends to the letter rather than the spirit of the requirements. In fairness, faculty outside of teacher education do have other priorities and limited information about the goals of state polices, NCATE, or their own institution's teacher preparation programs. In the absence of central leadership, faculty not directly involved in teacher education have little reason to take on responsibility for the education of teachers.

We do not imply here that college and university faculty are unsympathetic to the need for well-educated teachers, only that they see their role in this as being limited to teaching content in the way they teach it to all their students. They look to their colleagues in teacher education (including those based in disciplinary departments) to ensure that prospective teachers can employ the appropriate instructional techniques. We were interested to find that in several institutions the arts and science faculty seem to have devoted more effort to in-service training of teachers in neighboring schools than to the pre-service teacher preparation activities on their own campus.

It is almost certainly the case that there are more campus-wide conversations about teacher education than ever before. One reason for this on some campuses is that the Holmes Group institutions have placed priority on fostering institution-wide commitments to teacher education; participation in the Holmes Group required a formal endorsement of this goal from the institutions invited. This may lead to collaborative action in the future.

What suggestions can be derived from this study and related research about how to bring about change in the education of teachers?

The data from this study provide some clues to strategies for effecting change in the education of teachers. When we consider these inferences in the context of general propositions about organizational change, we think some generalizations emerge that may be helpful to those who seek to alter the ways teachers are educated. These generalizations might, perhaps, better be called "reflections" to emphasize their somewhat speculative

character. They are grouped together as being most relevant to environmental, organizational or cultural conditions influencing change. Specific implications of these propositions for public policies are suggested in the next section.

Environmental Influences

Resource Reduction Does Not Necessarily Lead to Change

The fact that teacher education programs lose students and resources does not appear, in itself, to be a stimulus to change. The teacher education programs in many of the colleges and universities we studied lost faculty and money without introducing significant changes. The reasons for this may have to do with a sense of powerlessness both with respect to the place of the teacher education program in the university and a belief that enrollment, a major determinant of resource allocation within the university, is largely beyond the influence of those whose base is in the teacher education program. The fact that, in most institutions, most faculty members have tenure means that the risk of losing one's job as a result of the organization's loss of clientele is not as great a threat as it might be in other types of organizations. Moreover, the loss of resources may become the explanation for why improvements cannot be undertaken.

On the other hand, when survival of the teacher education program is at stake, leaders may be able to mobilize faculty and administrators to undertake new approaches if such innovations are seen to have some reasonable chance of mitigating the threat to the program. When the teacher education program is either a major source of the college or university's revenue or an important part of the institution's identity, institution-wide support for change efforts that affect the education of teachers are probable. In such situations, problems may be translated into reasons for organizational innovation.

External Pressures Do Not Explain the Magnitude of Change

The weight of external pressures for reform of the education of teachers is not a good predictor of the degree of change in an institution. Of course, state mandates that establish tests and other admission or exit requirements or prescribe courses to be taught will be implemented. But whether the institution goes beyond minimal compliance depends on a number of other factors. The most critical of these may be the presence of leaders who see the pressure as an opportunity, the degree of self-confidence and competence within the faculty, the availability or development of organizational structures through which the change process can proceed in a controlled but open way, and the degree to which proposed changes build on organizational values and history.

Organizational Influences

Successful Implementation Requires Top-level Involvement

Often those who seek to change teacher education assume that the hard part is to get agreement about what should be done. But, it may be even harder to implement the agreed-upon plan. Paul Simon has written a song that should be the anthem for those who would reform the education of teachers. The key verse of this song warns, "The

closer your destination, the more you're slip-slidin away." Or, as that other poet Yogi Berra is alleged to have said, "It ain't over till its over." And, let us add, maybe not then.

One reason why fully effecting change is difficult is that those with broad authority in the organization often like to focus on shaping, rather than implementing, policy. This conserves their energy and influence to shape other policies. They usually see as their appropriate role only the formulation of the plans and move on to other waiting problems. When those who command the institution's resources cease to be visibly involved, those whose responsibility it becomes to implement change may not have the authority and power to ensure that plans are implemented as intended. A second reason change slips away at the implementation stage is that those who have opposed the change or not understood it often have control over some parts of the plan once it moves to the implementation stage.

Given the possibility that the change may become diffused or altered at the time of intended implementation, formal and informal leaders of the change process should not relinquish their responsibility too early. In fact, the more complex the plan for improving the education of teachers, the more conflict about its formulation. The more it requires new behavior on the part of those implementing it, the more its full implementation requires the continuing involvement of the organization's formal and informal leaders. Those who want to achieve specific changes in teacher education should be mindful that the author of "Murphy's law"--which holds that whatever can go wrong, will--was an optimist.

External Sources of Leaders' Influence

An important source of leaders' ability to help forge a consensus within a teacher education program about what needs to be done is derived from their roles outside the program. The most obvious type is perceived influence with other university or college administrators, especially the president and the chief academic officer. The reputation of a dean as a strong leader with national credentials is sometimes a source of influence beyond his or her own school. This is especially true when the individual's efforts are seen as having the support of the central administration. Thus, the reputation for leadership within one's field may influence an education dean's ability to negotiate partnerships and develop cooperative programs with other deans. The willingness to pursue change is conditioned by the prospects for success. Central administrators can influence the perception that other deans have of the potential influence of the education dean by drawing attention to the latter's achievements and tying this recognition to the mission of the university.

Also important is the perception within the program that the leader is respected among other teacher educators, experts on teacher education, and/or has access to influential policymakers.

The Importance of Using Change Opportunities for Strategic Purposes

The greater the depth and breadth of the substantive changes being proposed, the greater the problems of attaining the commitment of those who must change. This seemingly obvious assertion means that significant change takes a long time to achieve and may be the source of intraorganizational conflict. Both conflict and slow movement are often taken as failures in leadership. Thus, leaders have incentives to introduce simple, symbolic changes that can be implemented quickly. Modest efforts to improve, rather than setting the stage for more ambitious

innovation, may use up change opportunities because they can reduce external pressures on the organization, sap the energy faculty have to give to activities other than those that regularly confront them, and fail to kindle within the organization the prospect that the change effort will really make much difference.

Planned Changes Should Encompass the Parts of the Organization Upon Which Effective Change Depends

Most organizations have the capacity to respond to change efforts without really changing. This reality gives rise to old saws like "the more things change the more they remain the same." One way organizations respond to demands for change is to change only enough to relieve the pressure. Effective change is more probable if the organization is seen as a homeostatic social system so that all of the elements of the organization that can affect the desired outcome are encompassed in the plan. For example, the introduction to the curriculum of new research on the organization of instruction may be ineffectual without changes in the way the new content is taught and without modifying courses on instructional methods. And, efforts to teach prospective teachers not only the techniques but the value of active learning are undermined when most of the college instructors define teaching as the transmission of knowledge.

All of this means that effective change is something like a three- (or more) ring circus and the leader, even when he or she has engaged the energy of other leaders, needs to attend to the different rings of action at the same time. Change, it follows, is a full-time job when it is in process, a reality that higher level administrators in universities may not appreciate. Bringing about change is often less fun, and less rewarding in the short run, than other activities that come with the job of formal leader.

Changing the Education of Teachers Requires Institution-wide Commitment

Institution-wide commitment is essential to institution-wide change in the way teachers are educated. But, schools and departments of education usually cannot generate that commitment except through the active support for change on the part of central administrators. Few central administrators, however, seem to see the education of teachers as a high social or institutional priority. Instead, improving the education of teachers is seen as the responsibility of education professors. Requiring prospective elementary teachers to major in a discipline or eliminating the possibility of majoring in education is unlikely to change this situation in the absence of changes in the culture and incentives on those campuses not already committed to the education of teachers. The substantive involvement of central administrators can have significant influence on the development of the commitment necessary to bring about institution-wide change.

Change Will Not Exceed the Competence of Those Being Asked to Change

One of the surest ways to ensure that a change effort will fail is to ask people to do something they do not know how to do and do not have the resources to learn to do. This homey maxim is almost never attended to in efforts to change the education of teachers. States usually have not accompanied demands for change with opportunities for faculty development, and institutions seeking change seldom build into plans for change the time and learning resources that are necessary to acquire new capabilities. This problem is exacerbated by the role of expert assumed by most faculty, a role which makes it difficult for them to seek assistance to do something others agree are the things faculty should be doing.

The Absence of Outcome Measures Limits Incentives to Change

One of the most serious limitations on the development of a readiness to change within universities and colleges is the absence of measures of what students learn and are able to do as a result of their college experiences. Institutional quality is often measured by the academic achievement of entering rather than exiting students and progress in college is measured by course taking. Indeed, institutions often measure the effectiveness of their admission procedures by the extent to which the procedures predict student grades in college. This could lead to the paradox that the college which adds the least value to the knowledge and capabilities of their students will have the "best" admission requirements. The addition of state-imposed outcome measures to assess the quality of teacher education programs affects the content of the programs but not the curriculum of the larger institution (except in historically black institutions). Despite the fact that much of what is tested on state exit tests or on the NTE is not taught in the teacher education program, the failure of students on these tests is usually seen as failure of the teacher education program. This reduces the prospects for institution-wide change because the status of the teacher education unit is diminished and other units experience no negative consequences, at least in the short run. Outcome measures that would encourage change need not be statewide or institution-wide. Encouraging and assisting faculty to assess the outcomes of their own efforts, by whatever measures they deem appropriate and are willing to share with others, would seem to be an important way to motivate and give direction to change.

Cultural Influences

Effective Leaders Turn Pressures into Opportunities

The ability of leaders to turn threat into opportunity seems to depend on the ability of the leaders (there can be, and often is, more than one leader in a given institution) to articulate a vision of the changes to be pursued that is consistent with the institution's culture (its conception of its mission and its values). This usually means that the leaders must know the institution's history and myths and link this knowledge to changes that will allow the institution to embrace its heritage while also initiating something new.

Successful Leaders Engage in the Diffusion of Leadership

Leadership does not have to come from formal leaders. Indeed, formal leaders who are successful nurture others who will assume leadership. They do this because, when change is significant, there are more leadership tasks to attend to than formal leaders can handle, and because the diffusion of leadership responsibility spreads ownership allowing formal leaders to conserve their sources of influence. Moreover, because those external to the education program often will attribute the success of change efforts to the formal leader, formal leaders who share power are seen as more powerful. Being seen as more powerful means being more influential both inside and outside the education program.

Perceived Expertise is a Source of Leadership Influence in Teacher Education

One source of leaders' influence within colleges and universities is the ability and capacity to muster evidence as they articulate the need to change. Examples of this source of influence include the perception that the leaders have (a) access to

knowledge that allows them to see emerging trends, (b) a command of the relevant research, and (c) abilities to conceptualize a problem and systematically assess the relative costs and benefits of alternative solutions (including the status quo).

Participation in Decision Making about Change Should Be Extensive and Structured

The more those affected by proposed changes subscribe to the appropriateness of the change, the more likely it is that the change effort will be successful. Participation in decision making throughout the change process is likely to influence an individual's support of the change. But the logic of these two propositions could lead to total faculty involvement with resultant delays, excessive compromises, and frustration. Thus, while strategies for faculty involvement are crucial to successful change, the way that involvement is handled can make the difference between progress and stagnation. Participation in decision making aimed at attaining acceptance should be generally open but should also be constrained by time schedules and goals that are decided upon after extensive consultation at the start of the change process. It appears that effective efforts to diagnose problems start with a small group. As the diagnosis moves into the proposal formulation stage and back again to further diagnosis, the circle of involvement is widened.

While opportunities for anyone interested in being heard should be presented regularly, the proposal formulation task is formalized and assigned to a committee or set of committees. The ways these committees are organized and proceed are crucial. Membership of effective committees is seldom determined by voting or by formal position. Committees are chosen by formal leaders with a concern for necessary expertise, influence within the faculty, and representation of conflicting views and priorities. But effective committees, while they need to grapple with different views, are not typically balanced so that all views are equally represented. Experience shows that consensus on goals and specific changes often breaks down as proposals are implemented. Implementation, therefore, is not simply an administrative matter; it requires continuing efforts to reaffirm or modify goals and secure agreement about general proposals. This, in turn, requires maintaining faculty participation throughout the change process.

How can public policy support change in the education of teachers?

State policies aimed at improving the education of teachers have been essentially regulatory. To the extent that they have been interested in teacher education reform, governing boards of higher education have more or less followed leads set by state agencies and legislatures. That is, new policies focused on the preparation of teachers have sought to specify what should be taught to prospective teachers and how, who should be admitted to teacher education programs, and the ways that the qualifications of teachers certified to teach should be judged. Despite their negative and restrictive character, it seems clear that state policies and other external pressures have created conditions that are motivating changes in the ways colleges and universities in the SREB states educate teachers.

Few policymakers, however, would be satisfied if the improvements in teacher education were limited to those required by law or systemwide policies. The problem with relying on

regulation as the primary instrument for inducing change is that it doesn't change capabilities of institutions or individuals and its capacity to motivate is largely limited to those standards that can easily (simplistically?) be defined and readily enforced.

What might policymakers do beyond what has already been done to sustain and accelerate the movement to reform the way teachers are educated? We suggest four general ways that policy might be used. These suggestions follow from the conclusions reached in this study, but we cannot point to hard evidence to support our judgments of their likely effectiveness.

Institutional Performance Assessment. We have pointed to the influence that written tests of professional competence and subject matter knowledge and on-the-job performance assessments have on teacher education, but have argued that these measures seem to have little influence on the general college curriculum or the way it is taught.

What to do? States and higher education governing boards could hold institutions, and not just teacher education programs, responsible for what prospective teachers know and are able to do. For this to make a difference in teacher effectiveness, it would be necessary for states to invest in the development of sophisticated measures of what students learn in colleges and universities. Developing such measures would be no mean task, of course, but in their absence the ability to bring about purposeful change that will improve the quality of higher education, either at the level of governing boards or in state legislatures and executive offices, is severely limited.

New measures of the outcomes of the education provided prospective teachers are now underway at Stanford University and in the state education agencies in California and Connecticut. Because performance measures of this sort are expensive to develop and require expertise that is in short supply, it would seem sensible for states to work together, as are California and Connecticut, in their formulation and testing.

Faculty Development. A major reason why people do not do new and better things in organizations is that they do not know how to do them. Only one SREB state has recognized that changing teacher education might require that university and college faculty be provided with opportunities to improve their professional expertise. Funds to provide such opportunities--which would include release time for new learning, the payment of consultants with the needed expertise, collaborative program development, and team teaching--are not available in most colleges and universities. Successful businesses and the armed forces take it for granted that the introduction of new technologies and new strategies for administration

and personnel management should be accompanied by major investments in the education and training of key people on whom the implementation of the new approach depends. No such assumptions are made about implementing changes in higher education. One of the universities participating in this study has both a program for educating higher education administrators and a program for educating trainers for private corporations. Not one dollar of institutional support is provided to the dozens of higher education officials who are pursuing advanced work to enhance their careers. In contrast, one company alone spends $350,000 a year to educate its managers of training at that institution.

If states and governing boards want to change the ways teachers are educated, they will have to invest in faculty development. The happy outcome of such investments is that the more competence people have, the more they want to use that competence (Katz and Kahn, 1978). This, then, reduces the need for regulating behavior. Reducing regulation, in turn, creates opportunities for innovation.

Incentives to Develop New Approaches to the Education of Teachers. Creating more sophisticated measures of what students learn in higher education and holding institutions accountable for student learning would motivate many in higher education to seek improvements in their performance. Improving the capacity of faculty can also be motivating because it is enabling.

If we want to change the behavior of individual faculty to increase their commitment to effective teaching, especially those forms of teaching that are labor intensive, the rewards available within universities and colleges must be structured accordingly.

It follows that effective teaching cannot be rewarded unless teaching is effectively assessed. (Few institutions of higher education do much more in assessing faculty performance than look at student course evaluations.) Our survey data suggest that the emphasis on research productivity in assessing faculty is increasing. While this seems a laudable development, if it happens without giving greater weight than is now given to effective teaching and program development, the prospect for change that goes beyond compliance with mandates will not be great.

Incentives are not only important to individuals, they are important to organizations. Moreover, the development of new approaches to teaching and curricula often require extra resources, especially extra time. Thus, states and governing boards interested in fostering particular changes would do well to create grant programs that would reward, on a competitive

basis, institutions willing to move in the desired directions. For example, if it is desirable to build bridges between pedagogical courses and subject matter courses, a grants program could be so constructed, and the results of these efforts could be evaluated and disseminated. North Carolina has adopted such a strategy to encourage innovative approaches to collaboration between school systems and institutions of higher education.

Strengthening Leadership. Throughout this study, we have pointed to the important roles that leaders, formal and informal, play in the change process. It follows that some investment by the states and by systems of higher education in leadership development would facilitate change.

Governing boards could implement leader selection policies that focused not only on the ideas of candidates, but on their demonstrated capability to follow through. This would emphasize the importance of commitments to and capacity for ensuring effective program implementation, the hardest part of bringing about reform. University and college leaders have relatively few tools with which to motivate faculty to change their behavior. Strengthening the authority of leaders to administer monetary rewards is an obvious way to enhance their influence. This could be done by encouraging the development of pay plans based solely on merit and annual bonus systems, and the legitimatization of rewards for institution building. Such steps could be taken by reallocating funds now made available for salary and benefit increases.

Institutions of higher education seldom make any investment in leadership development other than the provision of funds for travel to conferences. Internships, observation at other institutions, focused training related to leadership competencies, and other strategies could be funded by states or by system governing boards.

Final Thoughts on Changing Colleges and Universities Through Public Policy

There is reason for state policymakers to conclude that had they not decided to force changes in teacher education (if not the education of teachers), some of the changes now underway would not have been initiated. There is also reason for them to believe that regulatory policies directed at public schools have stimulated change. So, why not use public policy to further efforts to improve the education of teachers?

We have argued that future public policies that would be most effective would be those that avoided regulation and that tried to induce changes driven by individual and institutional commitments to excellence. The blending of top-down and bottom-up strategies for promoting change is not an easy chemistry, but recent research on the effects of school reform efforts suggests that both ingredients are essential to the attainment of significant improvements (Odden & Marsh, 1987). If this is true for schools, it is even more true for colleges and universities.

One could argue that colleges and universities are dysfunctional organizations in many ways. They don't train their key workers, their goals are diffuse, their most prestigious employees value the esteem of colleagues outside the organization far more than the recognition of their co-workers, they reward (or at least tolerate) individual heresy and autonomy, and they don't have information that allows them (or anyone else) to know whether they are attaining their own goals. They serve the needs of faculty, to be sure, and these characteristics also serve the free pursuit of new knowledge. Colleges and universities aim to ensure, within broad bounds, that individuals will be exposed to and be able to pursue any idea, and that no new "truth" will either be easily accepted or readily dismissed.

Thus, the paradox; the decentralized and relatively anarchic character of colleges and universities is essential to their roles in establishing the bases for progress and reducing the likelihood of unexamined social error. But these same characteristics make it difficult to change them. The more immediate we expect the contributions of colleges and universities to be to the welfare of the society, the more we expose the weaknesses of colleges and universities as agents for short-run social change. The more we expose their limits, the greater the temptations to limit them.

This paradox, and the difficulty of resolving it, is illuminated by the contemporary struggle to reform the education of teachers. In general, colleges and universities have disclaimed responsibility for <u>training</u> students to assume particular occupational roles, especially in undergraduate education. There are a few exceptions to this posture, and none is more obvious than is the presumption that colleges and universities can prepare most students to teach in public schools. This presumption is happily accepted by school systems because it frees them from the costs involved in training and nurturing new employees. When demands for improving education mount, efforts to control what teacher education programs do and who they admit also increase.

To the extent that efforts to control the behavior of teacher education faculty--by defining their duties, the content of their courses, and even the way courses are taught--through public policy are successful, and to the extent that efforts to assess specific competencies of teacher candidates are implemented, the status of teacher educators and teacher education programs are diminished within colleges and universities. This, in turn, makes it easy to deny the programs resources and makes it difficult to encourage the idea that the education of teachers is an institution-wide responsibility.

All of this is to say that efforts to impose change on teacher education are likely to have little consequence unless policymakers in state governments and in higher education focus more attention on the unique contributions that colleges and universities can play in readying prospective teachers to be lifelong learners. Treating faculty and students who are involved in teacher preparation differently from other college faculty and students will lead to a further decline in the ability of colleges and universities to attract and educate students with the talent and commitment we need from the next generation of teachers. This practice is also likely to result in training teachers to meet past rather than future needs.

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APPENDIX

Responses to Questionnaire on Changes in Teacher Education

Characteristics of Institutions Responding		Number	Percent
Respondents		161	
Type of Institutions:	Public	142	88
	Private	19	12
Highest Degree Offered:	Doctoral	57	35
	Master's	81	50
	Baccalaureate	23	14
Size of Institution (Total undergraduate students)			
Under 2,500		40	25
2,501 - 5,000		37	23
5,001 - 10,000		43	27
over 10,000		41	25

PARTICIPATING INSTITUTIONS*

Public

Alabama A&M University
Alabama State University
Athens State College
Auburn University
Auburn University at Montgomery
Jacksonville State University
Troy State University
Troy State University at Dothan
Troy State University in Montgomery
University of Alabama
University of Alabama at Birmingham
University of Montevallo
University of North Alabama
University of South Alabama

Arkansas State University
Arkansas Tech University
Henderson State University
Southern Arkansas University
University of Arkansas
University of Arkansas at Little Rock
University of Arkansas at Monticello
University of Arkansas at Pine Bluff
University of Central Arkansas

Florida A&M University
Florida Atlantic University
Florida International University
Florida State University
University of Central Florida
University of Florida
University of North Florida
University of South Florida
University of West Florida

Augusta College
Columbus College
Fort Valley State College
Georgia College
Georgia Southern College
Georgia Southwestern College
Georgia State University
Kennesaw College
North Georgia College
University of Georgia
Valdosta State College
West Georgia College

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* Responses were received from an arts and sciences dean or academic vice-president, chair of education college or department, or from both at responding institutions.

Eastern Kentucky University
Kentucky State University
Morehead State University
Murray State University
Northern Kentucky University
University of Kentucky
University of Louisville
Western Kentucky University

Grambling State University
Louisiana State University
Louisiana State University in Shreveport
McNeese State University
Nicholls State University
Northeast Louisiana University
Northwestern State University
Southeastern Louisiana University
Southern University
Southern University at New Orleans
University of New Orleans
University of Southwestern Louisiana

Bowie State College
Coppin State College
Frostburg State College
Morgan State University
Salisbury State College
St. Mary's College of Maryland
Towson State University
University of Maryland Baltimore County
University of Maryland College Park
University of Maryland Eastern Shore

Jackson State University
Mississippi State University
Mississippi University For Women
Mississippi Valley State University
University of Mississippi
University of Southern Mississippi

Appalachian State University
East Carolina University
Elizabeth City State University
Fayetteville State University
North Carolina A&T State University
North Carolina State University
Pembroke State University
University of North Carolina at Asheville
University of North Carolina at Chapel Hill
University of North Carolina at Charlotte
University of North Carolina at Greensboro
University of North Carolina at Wilmington
Western Carolina University
Winston-Salem State University

Cameron University
Central State University
East Central University
Langston University
Northeastern State University
Oklahoma Panhandle State University
Oklahoma State University
Southeastern Oklahoma State University
Southwestern State University
University of Oklahoma
University of Science and Arts of Oklahoma

Clemson University
Francis Marion College
Lander College
South Carolina State College
The Citadel
University of South Carolina
University of South Carolina at Aiken
University of South Carolina at Spartanburg
Winthrop College

Austin Peay State University
East Tennessee State University
Memphis State University
Middle Tennessee State University
Tennessee State University
Tennessee Technological University
University of Tennessee
University of Tennessee at Chattanooga
University of Tennessee, Knoxville
University of Tennessee at Martin

Angelo State University
Corpus Christi State University
East Texas State University
East Texas State University at Texarkana
Lamar University
Laredo State University
Midwestern State University
North Texas State University
Pan American University
Prairie View A&M University
Sam Houston State University
Stephen F. Austin State University
Texas A&I University
Texas A&M University
Texas Southern University
Texas Tech University
Texas Woman's University
University of Houston
University of Houston - Clear Lake
University of Houston - Victoria
University of Texas at Arlington
University of Texas at Austin
University of Texas at El Paso
University of Texas at San Antonio
University of Texas at Tyler
University of Texas of The Permian Basin
West Texas State University

Christopher Newport College
George Mason University
James Madison University
Longwood College
Mary Washington College
Norfolk State University
Old Dominion University
Radford University
University of Virginia Clinch Valley College
University of Virginia
Virginia Commonwealth University
Virginia Polytechnic Institute & State University

Concord College
Fairmont State College
Glenville State College
Marshall University
Shepherd College
West Liberty State College
West Virginia College of Graduate Studies
West Virginia Institute of Technology
West Virginia State College
West Virginia University

Private+

Samford University (Alabama)

Harding University (Arkansas)
Hendrix College
Ouachita Baptist University

Bethune-Cookman College (Florida)
Jacksonville University
Rollins College
University of Miami

Brenau College (Georgia)
Clark College

Berea College (Kentucky)
Centre College of Kentucky
Cumberland College

Centenary College of Louisiana

Goucher College (Maryland)

Belhaven College (Mississippi)
Millsaps College
Mississippi College

+ Questionnaires were sent to selected private institutions.

Davidson College (North Carolina)
Elon College
Lenoir-Rhyne College
Wake Forest University

Oklahoma Christian College (Oklahoma)
University of Tulsa

Benedict College (South Carolina)
Columbia College
Converse College

Carson-Newman College (Tennessee)
Freed-Hardeman College
LeMoyne-Owen College
Vanderbilt University
University of the South

Baylor University (Texas)
Houston Baptist University
Incarnate Word College
Texas Christian University
Trinity University
University of Mary Hardin-Baylor

Eastern Mennonite College (Virginia)
Hollins College

Salem College (West Virginia)
West Virginia Wesleyan College

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